

Date	Time	Class/Set	Lesson No	No. in class	Room
19-03-19	12:20-1:20	10y1	7	Girls: 16 Boys: 14	Lab 3
Your targets from weekly training meeting relevant to this lesson					
TS 6.4 Continuing to develop your strategies for AfL within the lesson giving feedback verbally and written.					
TS 5.3 Having an awareness of individual needs of students and adapting lesson as necessary.					
TS2.3- Referring back to learning objectives?					
Background of the class context of your teaching and learning plan and your expectations					
Targeted Support: Eal			Additional Adults: Emily Paines Philip Snell		
Relevant Curriculum Statements					
Students should be able to describe how monoclonal antibodies are produced. Monoclonal antibodies are produced from a single clone of cells. The antibodies are specific to one binding site on one protein antigen and so are able to target a specific chemical or specific cells in the body. They are produced by stimulating mouse lymphocytes to make a particular antibody. The lymphocytes are combined with a particular kind of tumour cell to make a cell called a hybridoma cell. The hybridoma cell can both divide and make the antibody. Single hybridoma cells are cloned to produce many identical cells that all produce the same antibody. A large amount of the antibody can be collected and purified.					
Pre-supposed knowledge / Possible Concepts / Misconceptions / Alternative Ideas					
-Understanding of antibodies in the immune response.					
-Know about white blood cells and how they produce antibodies to destroy a pathogen.					
-May not have come across monoclonal antibodies.					
-Have a different idea of how pregnancy tests work.					
Learning points:					
Describe what a monoclonal antibody is					
Outline the procedure used to produce monoclonal antibodies					
Explain in detail how pregnancy tests work					

Time	Teacher Activity What are you doing? Additional adults in room?	Pupil Activity What are the pupils doing? Evidence of progress? Refer to Learning Points.
12:20 12:30	<ul style="list-style-type: none"> - Starter task on the board on question on wbc's and antibodies recalling prior knowledge of WBC role in immune response. - Thinking question for today's lesson. - Go around with pink pen checking student answers. - Hand out e-praise points. - Select students to go through answers - go through the graph with answers - students read out L.O's 	<ul style="list-style-type: none"> - students are answering the questions. - recalling prior knowledge. - Answer the questions when selected for feedback by teacher. - students give responses when selected. - Correct their answers. - read out L.O's. - Students to think about the big question
12:30- 12:40 (12:45)	<ul style="list-style-type: none"> - direct students to thinking task and answers on white boards with partners - couple minutes feedback checking the responses. - go around and check ideas. - show the correct definition- students to edit their definition into books. - Introduce the video- task based on this after. - Highlight the word epitope - students watch the video- need as reference - hand out the sheets for task.- get student to explain back what they have to do. 	<ul style="list-style-type: none"> - Students think about what monoclonal antibodies are looking at images and the words. - students think pair share - write ideas on the whiteboards - Write definition down - share back feedback when selected. - Students watch the video on making monoclonal antibodies
12:40- 12:50	<ul style="list-style-type: none"> - Direct Students to complete the task - label diagrams without help (Top set) - Help sheets for students who need the descriptions available. Challenge qs for those finished - after couple mins show descriptions - tell students doesn't need to be word for word just to show the meaning. - go around and check students are on task. - Gain pupil feedback of answers - green pens self assess- answers coming up on the boards. - Ask for scores. 	<ul style="list-style-type: none"> - students complete the task. - help sheets available. - students complete without descriptions - Then with to check they have everything in the right order. - students to feedback their answers. - correct their answers - Score themselves green pens.
12:50- 1:00	<ul style="list-style-type: none"> - students to watch the video - Direct students to task- answering questions through the video - pause if appropriate. - get feedback off answers from students. - answers coming up on the board 	<ul style="list-style-type: none"> - Students watch the video - Answer questions through the video - feedback to teacher the answers. - Correct answers.
1:00- 1:15	<ul style="list-style-type: none"> - Ask students to explain the pictures to ensure they have understood what goes on in the pregnancy test. - select students to answer - correct them if wrong words used. - Students to complete exam style question - Mark scheme available. - students score themselves 	<ul style="list-style-type: none"> - Students explain what is happening at each site after the corrections are made. - students to listen to teacher highlighting particular words. - students to complete the exam style question - Students to Mark their exam question - Exam qs as homework or marking it next lesson if no time
	Plenary quiz quick check match up if time.	Quiz white boards Pack away

Evidence of Pupil Progress

Instant feedback through questioning
Ability to complete the tasks
White boards.
Think pair share and feedback.
Ability to complete the exam question

Resources needed:**Information sheets**

Resource sheets
Exam questions
Help sheets
Challenge tasks.

Health and Safety issues and Risk Assessment:**Homework set:****Evaluation (after every lesson)****Strengths / Areas for Development****Evidence****Actions for future plans**

Reflection (once per week)....